



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,616	11/23/2005	Tommy Kristensen Bysted	939-012101-US (PAR)	1359
2512 7590 03/04/2009				
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824				
EXAMINER				
ZEWARL, SAYED T				
ART UNIT		PAPER NUMBER		
2617				
MAIL DATE		DELIVERY MODE		
03/04/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/523,616

Applicant(s)

BYSTED ET AL.

Examiner

SAYED T. ZEWARI

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20, 23-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 11/19/2008 have been fully considered but they are not persuasive.
2. Applicant argues that "Sakoda is not relevant to Applicant's claimed subject matter because Sakoda has no disclosure related to "depth" of "interleaving" as that term is used and described in the specification." This argument is not persuasive because Sakoda discloses this limitation and reads on applicant's "depth of interleaving". A quick search of internet shows that the "depth of interleave" is defined as the number of bits (or bytes) in each block of data. So Sakoda discloses interleaving and data blocks of varying length that are transmitted to facsimile, email, or audio processor. Therefore, Sakoda discloses various "depth of interleaving". Sakoda still reads on this limitation.

Objection to Specification

3. The objection to specification is maintained because the applicant has not corrected the specification.

Claim Rejections - 35 USC § 112

4. The rejection under 35 USC § 112 is maintained because the applicant has not corrected the problem. The explanation in the body of Remarks is not sufficient. These claims should be clarified in specification and in the body of the claims.

Specification

5. The specification is objected to because there is not enough explanation of claims. For proper examination of the application, the examiner needs to read and understand the application thoroughly. As it is written now, it fails to communicate as to what exactly the invention is and it puts enormous burden on the examiner. It needs to be rewritten in simple, clear and understandable language. Correction is required. See MPEP § 608.01(b).
6. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

7. As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a

nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to

Art Unit: 2617

specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the

Art Unit: 2617

applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 11, 12, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claim recite “...*the depth of said interleaving corresponds to a transmission time not greater than the least of said defined transmission times*”. This part of the claims is not clear and no proper clarification is given in the specification. For the purpose of examination these claims are interpreted, as best understood, as to mean that every transmission time is a set time period and the interleaved data is transmitted within this set time period. Clarification and/or correction are required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 11-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakoda et al. (US 6,088,345).

With respect to claim 12, Sakoda discloses a transmitter for transmitting blocks of digital data (**See Sakoda's figure 1(21, 24, 25), col.4 lines 1-21, lines 53-56, col.6**

lines 11 19 where transmitting blocks of digital data is involved with emailing and facsimile), the transmitter comprising processing means (**See Sakoda's figure 1(16, 22), col.3 lines 46-49, 63-65**) including a memory storing data representing a set of processing manners (**See Sakoda's figure 1(24, 25), col.4 lines 53-65**), said data defining a block size and a transmission time therefor for each processing manner (**See Sakoda's col.4 lines 1-37**), wherein the processing means is configured to: process at least one data flow, the or each data flow being processed according to manners selected from said set of processing manners (**See Sakoda's figure 1 and figure 10, col.3 lines 42-67**); concatenate data from the or each data flow and a code identifying said selected manner or manners to produce a block of concatenated data (**See Sakoda's figure 1 and figure 10, col.3 lines 42-67, col.4 lines 1-37**); interleave said block (**See Sakoda's figure 5, col.8 lines 21-27, figure 6, col.9 lines 13-25**); and transmit said block wherein the depth of said interleaving corresponds to a transmission time not greater than the least of said defined transmission times (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25**).

With respect to claim 23, Sakoda discloses a method of transmitting a block of digital data (**See Sakoda's figure 1(21, 24, 25), col.4 lines 1-21, lines 53-56, col.6 lines 11-19 where transmitting blocks of digital data is involved with emailing and facsimile**), the method comprising: establishing data representing a set of processing manners, said data defining a block size and a transmission time therefor for each processing manner (**See Sakoda's figure 1(24, 25), col.4 lines 53-65, lines 1-37**), processing at least one data flow, the or each data flow being processed according to

manners selected from said set of processing manners (**See Sakoda's figure 1 and figure 10, col.3 lines 42-67**); concatenating data from the or each data flow and a code identifying said selected manner or manners to produce a block of concatenated data (**See Sakoda's figure 1 and figure 10, col.3 lines 42-67, col.4 lines 1-37**); interleaving said block (**See Sakoda's figure 5, col.8 lines 21-27, figure 6, col.9 lines 13-25**); and transmitting said block, wherein the depth of said interleaving corresponds to a transmission time not greater than the least of said defined transmission times (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25**).

With respect to claim 24 and 13, Sakoda discloses a method wherein said defined transmission times are inherently integer multiples of the transmission time corresponding to said interleaving depth (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25**).

With respect to claim 25, Sakoda discloses a method including receiving a signal defining said set of processing manners (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25**).

With respect to claim 26, Sakoda discloses a method including storing data representing a plurality of processing manners and selecting from said stored data in response to said signal defining said set of processing manners (**See Sakoda's figure 1(24, 25), col.4 lines 53-65**).

With respect to claim 27, Sakoda discloses a method wherein each processing manner includes an inherent interleaving process definition (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25**).

With respect to claim 28, Sakoda discloses a method wherein interleaving according to an interleaving process definition is only performed if the transmission time of the same processing manner is greater than the least of the transmission times of said set **(See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25)**.

With respect to claim 29, Sakoda discloses a method wherein said block is transmitted by radio waves **(See Sakoda's figure 1(21, 13, 11, 12), col. 3 lines 22-41)**.

With respect to claim 11, Sakoda discloses a transmitter wherein the processing means includes a memory storing data representing a set of processing manners **(See Sakoda's figure 1(24, 25), col.4 lines 53-65)**, said data defining a block size and a transmission time therefor for each processing manner **(See Sakoda's figure 1(24, 25), col.4 lines 53-65)**, and the processing means is configured such that the depth of said interleaving corresponds to a transmission time not greater than the least of said defined transmission times **(See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25)**.

With respect to claim 14, Sakoda discloses a transmitter including a receiving means for receiving a signal defining said set of processing manners **(See Sakoda's figure 1(21, 13), col.4 lines 1-21, col.9 lines 13-25)**.

With respect to claim 15, Sakoda discloses a transmitter wherein the processing means includes a memory storing data representing a plurality of processing manners **(See Sakoda's figure 1(24, 25), col.4 lines 53-65)** and the processing means is configured for selecting from said stored data in response to said signal defining said

set of processing manners (**See Sakoda's figure 1(21, 13), col.4 lines 1-21, col.9 lines 13-25).**

With respect to claim 16, Sakoda discloses a transmitter wherein each processing manner includes an interleaving process definition (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25).**

With respect to claim 17, Sakoda discloses a transmitter wherein the processing means is configured such that the interleaving according to an interleaving process definition is only performed if the transmission time of the same processing manner is greater than the least of the transmission times of said set (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25).**

With respect to claim 18, Sakoda discloses a transmitter wherein transmitter circuitry comprises radio transmitter circuitry (**See Sakoda's figure 1(21, 13, 11, 12), col. 3 lines 22-41).**

With respect to claim 19, Sakoda discloses a mobile phone (**See Sakoda's figure 1, col.3 lines 22-41).**

With respect to claim 20, Sakoda discloses a base station for a mobile phone network including a transmitter (**See Sakoda's figure 2, col.4 lines 66-67, col.5 lines 1-21).**

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAYED T. ZEWARDI whose telephone number is (571)272-6851. The examiner can normally be reached on 8:30-4:30.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sayed T Zewari/
Examiner, Art Unit 2617v

February 20, 2009

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617